

FIG. 3

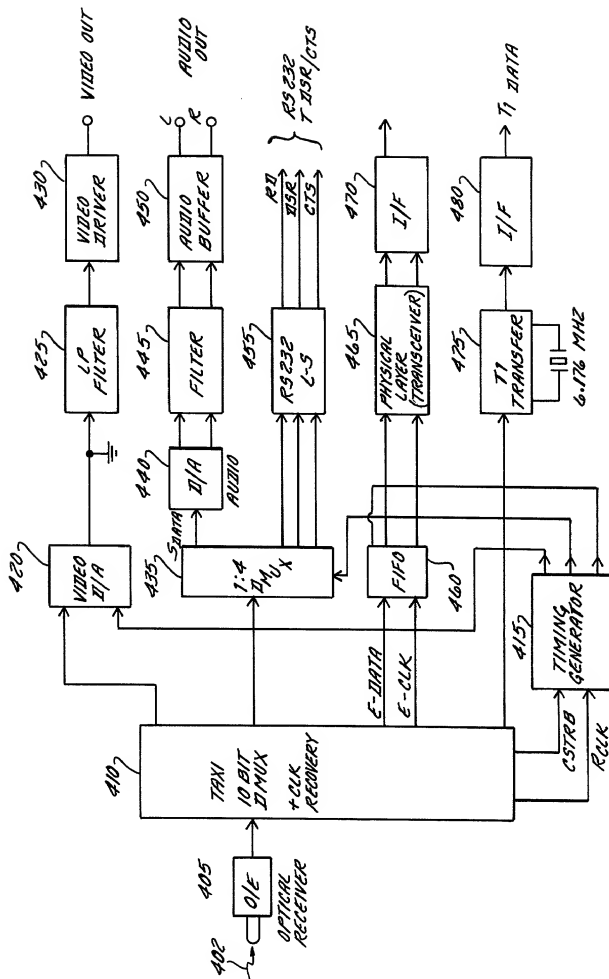


FIG. 4

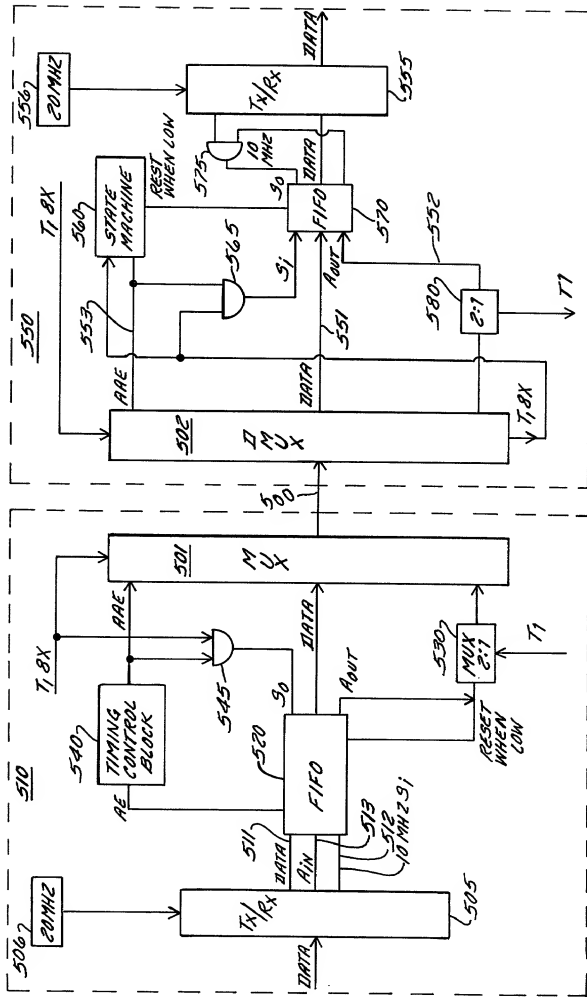


FIG. 5

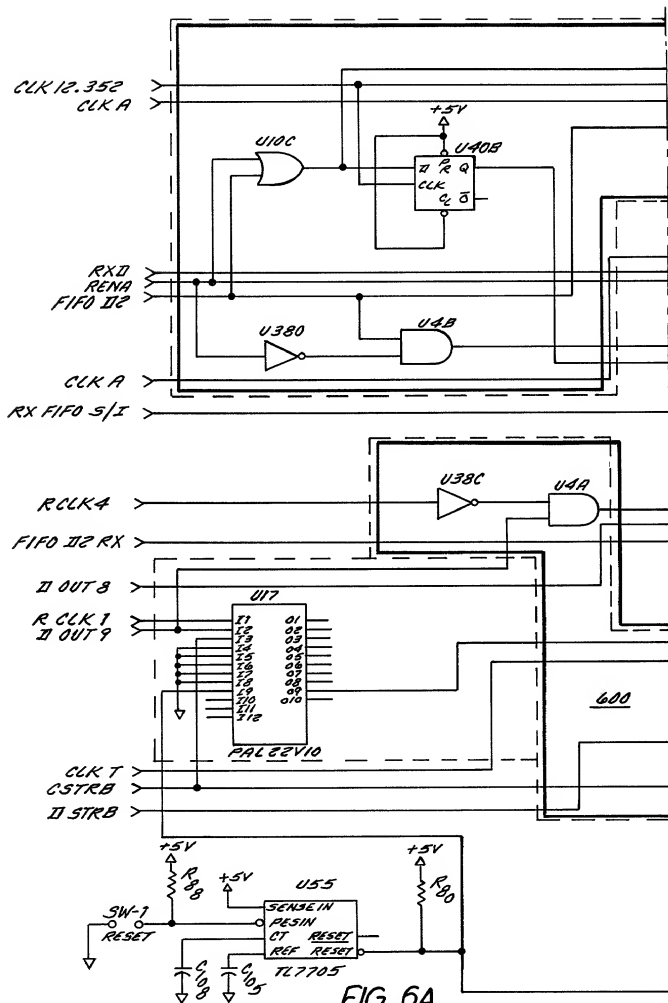


FIG. 6A

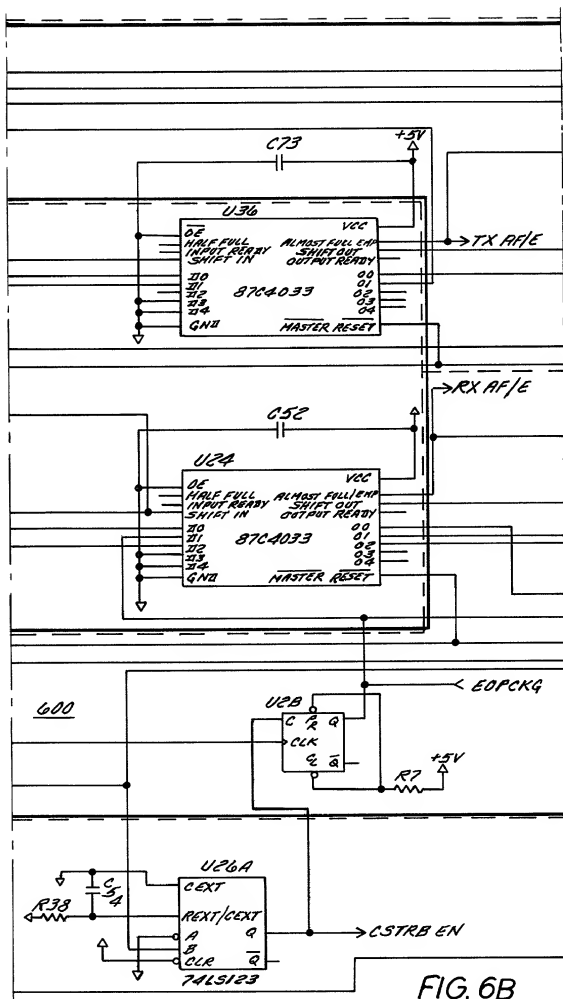


FIG. 6B

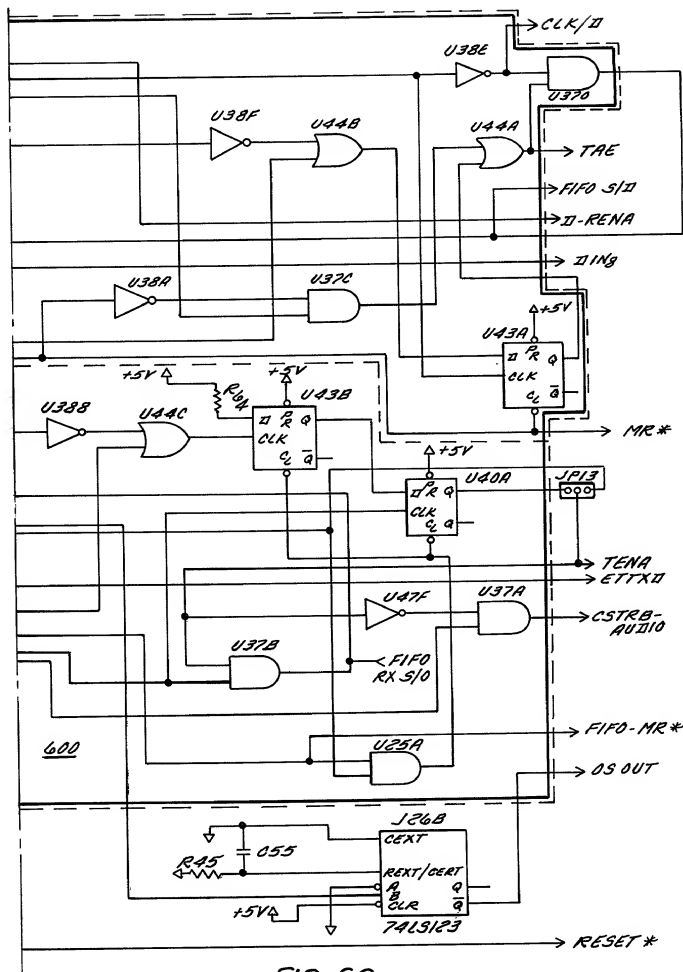


FIG. 6C

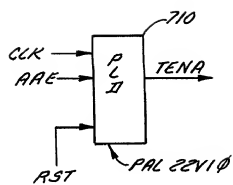


FIG. 7A

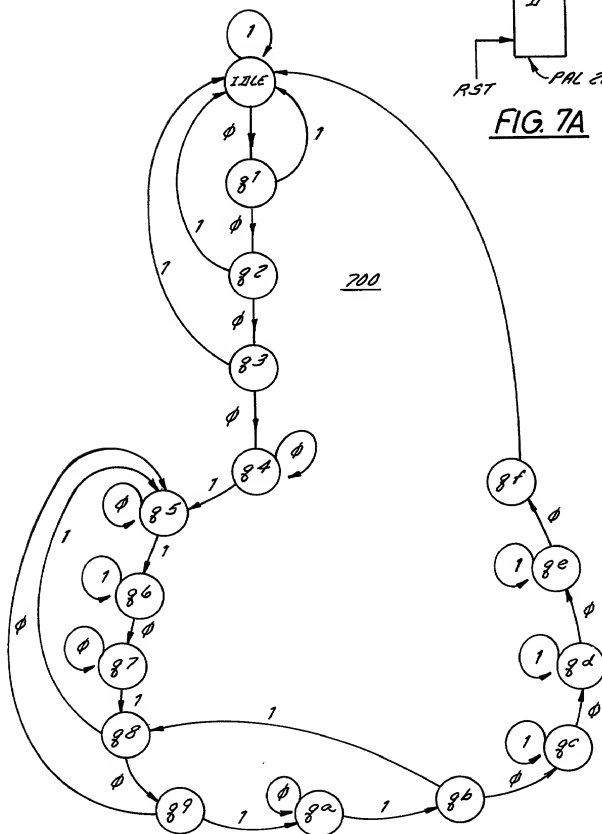


FIG. 7B

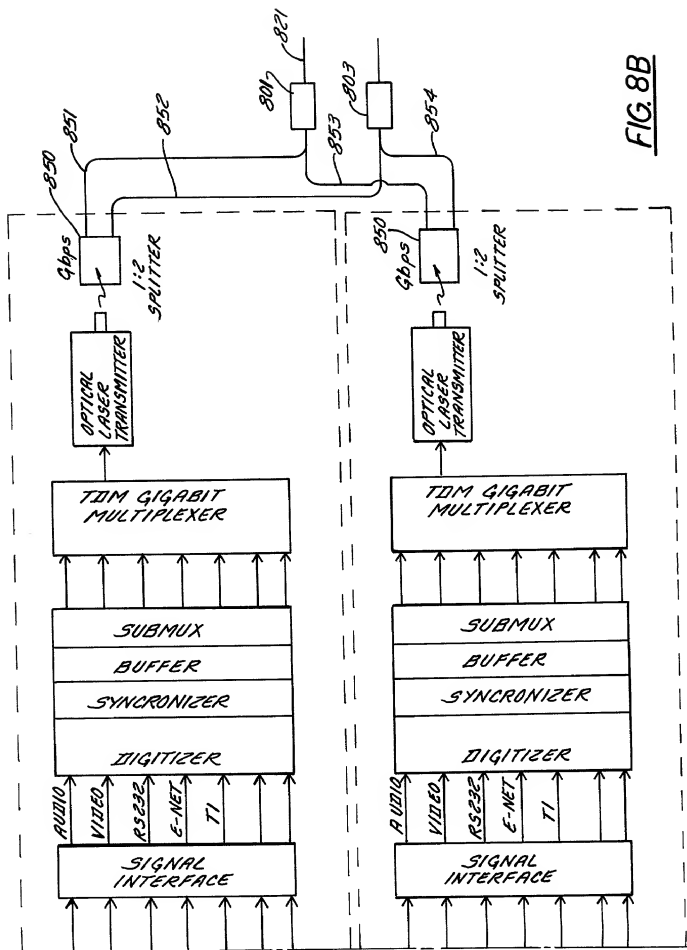


FIG. 8B

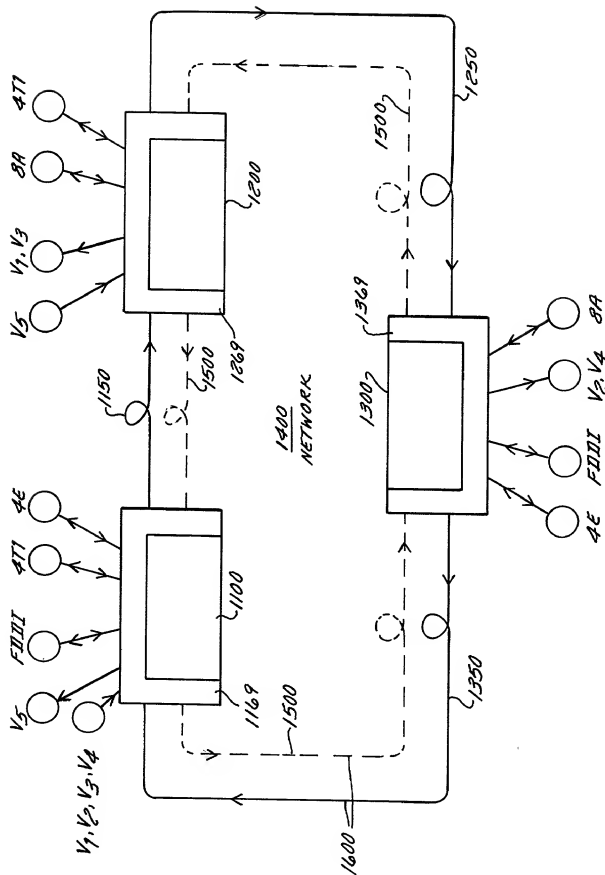
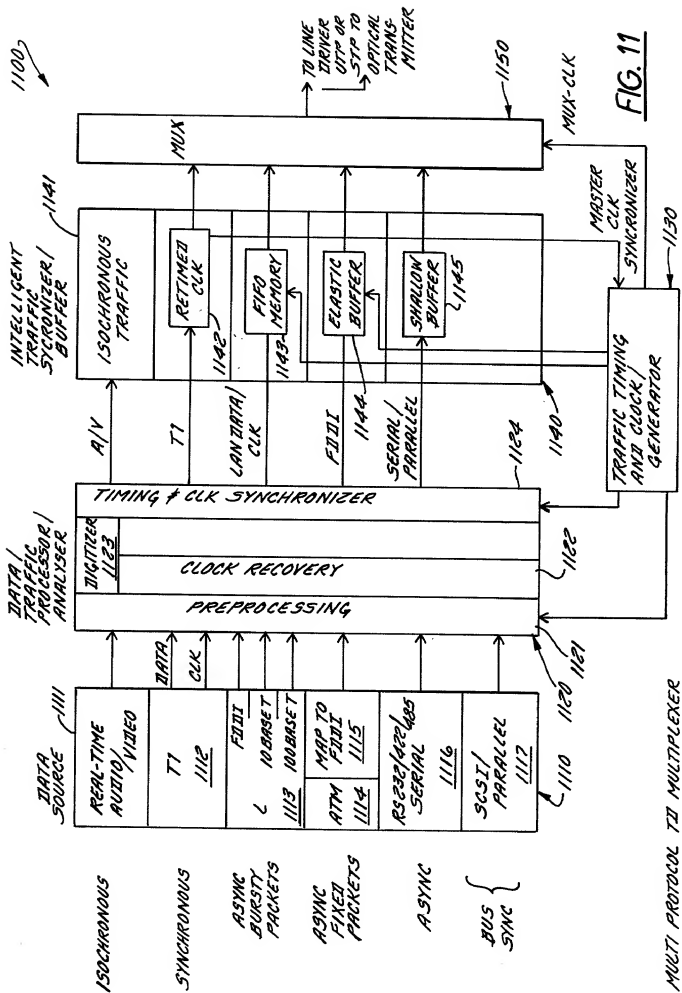


FIG. 10



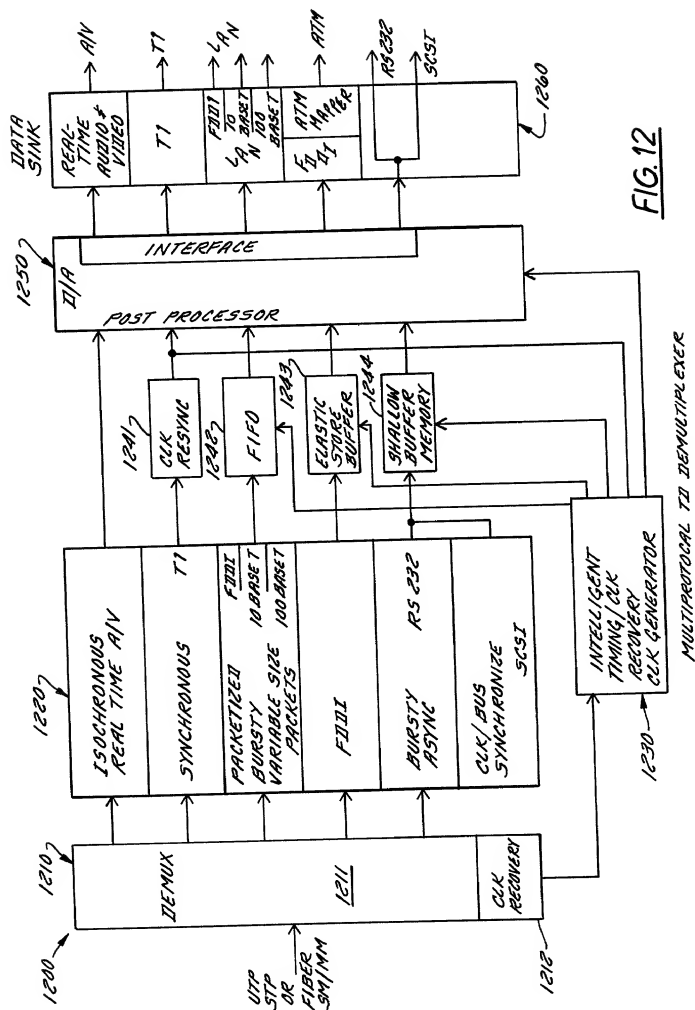


FIG. 12

DATA TYPE	MULTIPLEXER/ DEMULTIPLEXER INTERFACE REQUIREMENT	DATA RATE	TIMING SENSITIVITY
AUDIO/ VIDEO MULTIMEDIA	<ul style="list-style-type: none"> CONTINUOUS SAMPLING LOCK MATCHING MINIMUM BUFFERING 	VARIABLE BIT RATE IN COMPRESSED MODE UNCOMPRESSED DEPENDS ON RESOLUTION & SAMPLING RATE	AUDIO/ VIDEO SYNCHRON- IZATION
<u>RS232/422/485</u> SERIAL ASYNCHRONOUS <u>SCSI</u> PARALLEL BUS SYNCHRONIZED	CAN USE BUFFER OR LOW SPEEDS USE OVERSAMPLING REQUIRE FIFO MEMORY	VARIABLE $10\text{ Kb/s} \rightarrow 10\text{ Mb/s}$ VARIABLE $\rightarrow 40\text{ MBYTE/s}$	BAUD RATES NEED MATCHING ----- INTERLOCKED HANDSHAKE BUS TIMING SYNCHRON- IZATION
TI	NEED DIRECT MATCHING OF TI CLK WITH MUX SYNCHRONIZATION OF MASTER CLOCK	1.544 Mb/s	CLOCK/RECOVERY VERY STRICT TIMING REQUIRE CLK 1.544 ± 32 PPM
LAN	NEED CLOCK RECOVERY MINIMUM BUFFER AND STRICT DATA RATE MATCHING USING SHALLOW FIFO	100 Mb/s	CLOCK RECOVERY REQUIRED ELASTIC BUFFER
		10 Mb/s	CLOCK RECOVERY NEEDED
		100 Mb/s	CLOCK RECOVERY NEEDED
<u>WIDE AREA</u> <u>ST1/ST3</u> ATM	PRECISE NEED CLOCK RECOVERY AND DEFRAMING WITH TRANSFER TO PACKET	$51.84/155.5$ $OC1/OC3$ Mb/s	TIME/STAMP REQUIREMENT ----- CLOCK CORRECTION

FIG. 13A

<u>DELAY/LATENCY SENSITIVITY</u>	<u>TRAFFIC TYPE</u>	<u>DATA STREAM</u>	<u>APPLICATIONS</u>	<u>REMARKS TYPE OF CHANNEL</u>
CONSTANT FOR MINIMUM JITTER	CONSTANT BIT RATE LAMINAR BIT STREAM	MULTIMEDIA TELECONFERENCING VIDEO CONFERENCING SECURITY	ISOCHRONOUS	
JITTER REQUIREMENT (NOT VERY TIGHT)	VARIABLE BIT RATE	COMPUTER TO COMPUTER / PERIPHERAL COMPUTER TO MEMORY	ASYNCHRONOUS BUS SYNCHRONOUS	
MINIMUM JITTER REQUIREMENT FOR VOICE MIN. ACCEPTABLE LATENCY ~ 150 MS	CONSTANT BIT RATE	TELEPHONY WIDE AREA	SYNCHRONOUS	
MAX. ELASTICITY FUNCTION OF NETWORK / TOKEN ROTATING TIMES	BURSTY ASYNCHRONOUS PACKETIZED	OPTICAL NETWORK IN BACKBONES	BURSTY PACKETIZED	
COLLISION DOMAIN LIMITED	ASYNCHRONOUS	LAN	ASYNCHRONOUS	
COLLISION DOMAIN LIMITED	ASYNCHRONOUS	LAN	ASYNCHRONOUS	
VARIABLE LATENCY DEPENDENT ON TRAFFIC MIN. LATENCY AND JITTER REQUIREMENT FOR VOICE/TELEPHONE AND MULTIMEDIA TRAFFIC	VBR: VARIABLE BIT RATE CBR: CONSTANT BIT RATE ABR: AVAILABLE BIT RATE ASYNCHRONOUS TRANSFER MODE ASYNCHRONOUS	WIDE AREA NETWORK	CAN MAP ATM CELLS TO FDDI PACKETS AND THE TRANSFER SYNCHRONOUSLY	

FIG. 13B

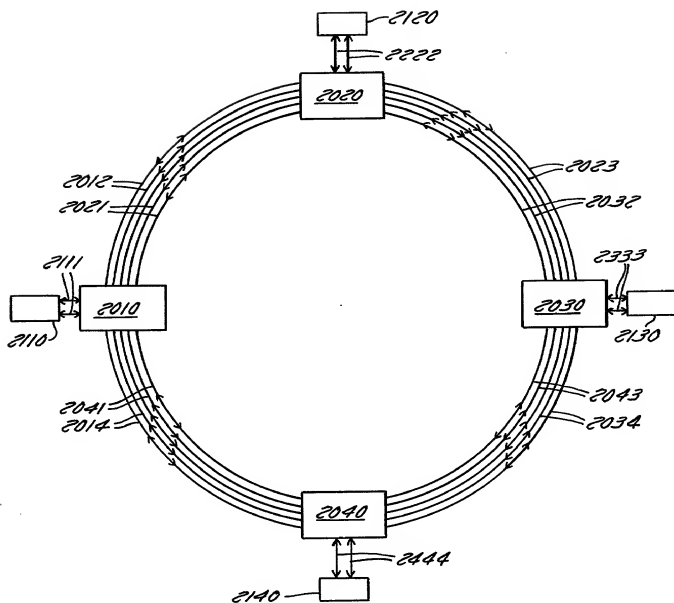


FIG. 14

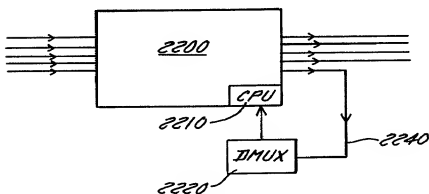


FIG. 15

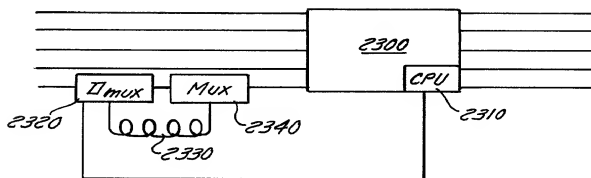


FIG. 16

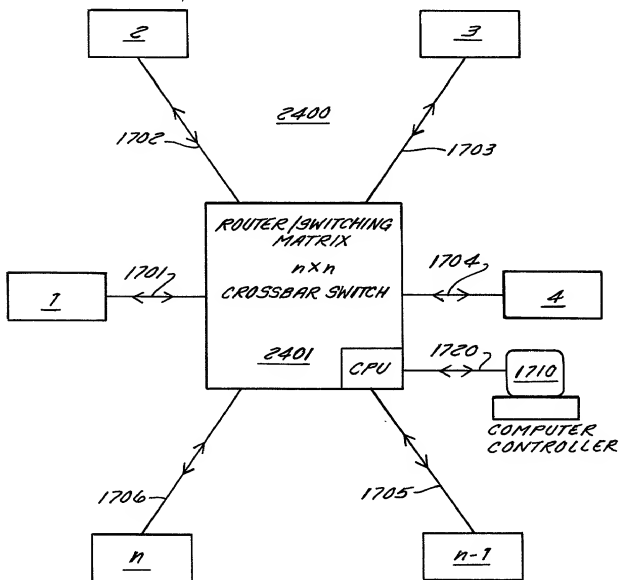


FIG. 17

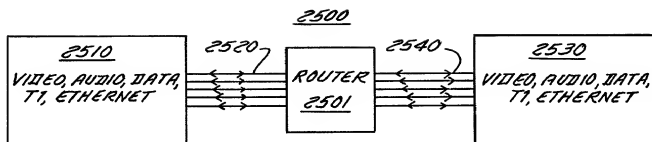


FIG. 18

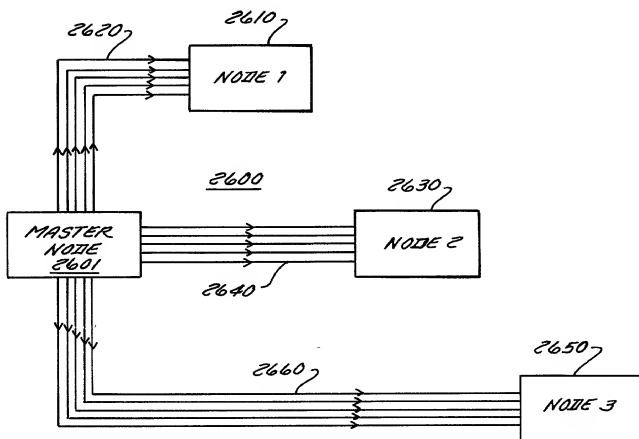


FIG. 19

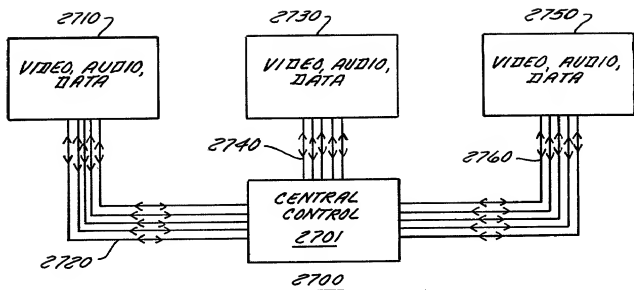


FIG. 20

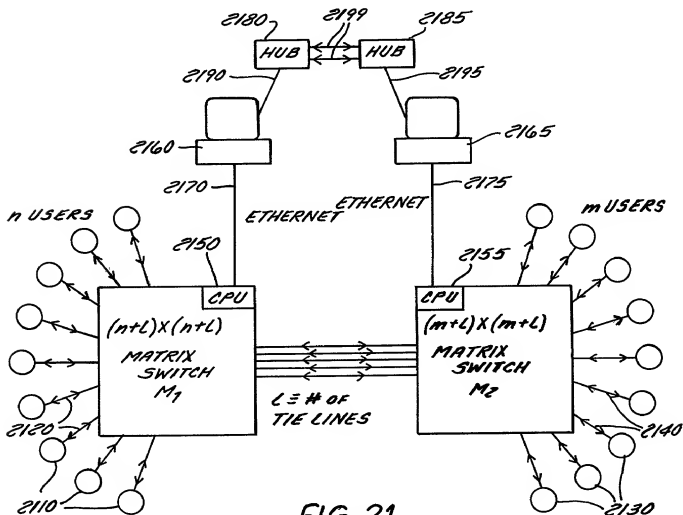


FIG. 21

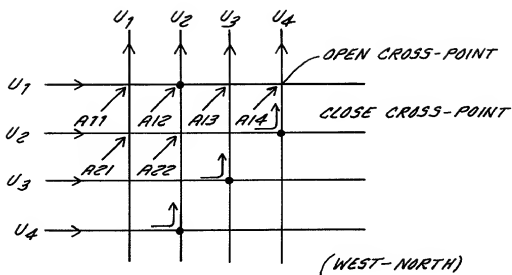
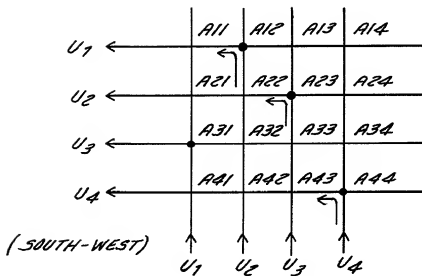
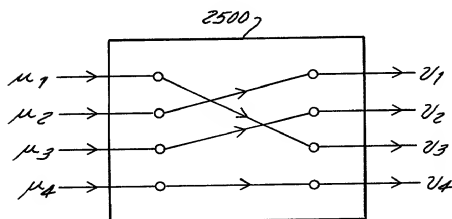
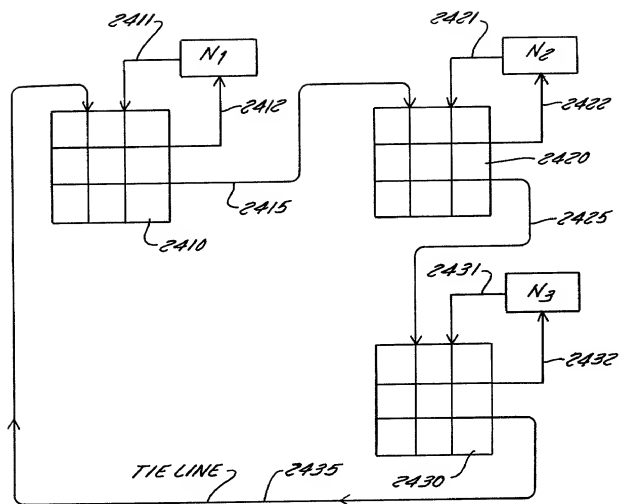


FIG. 22





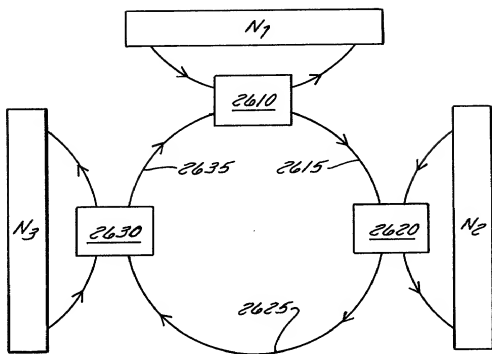


FIG. 26

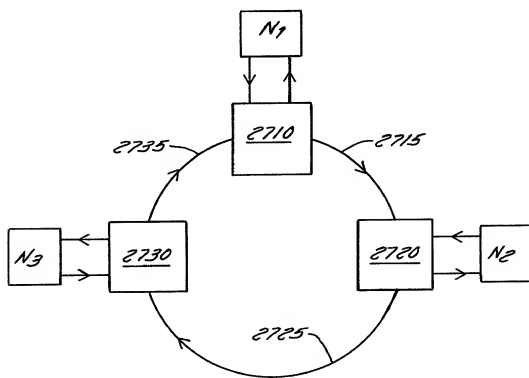


FIG. 27

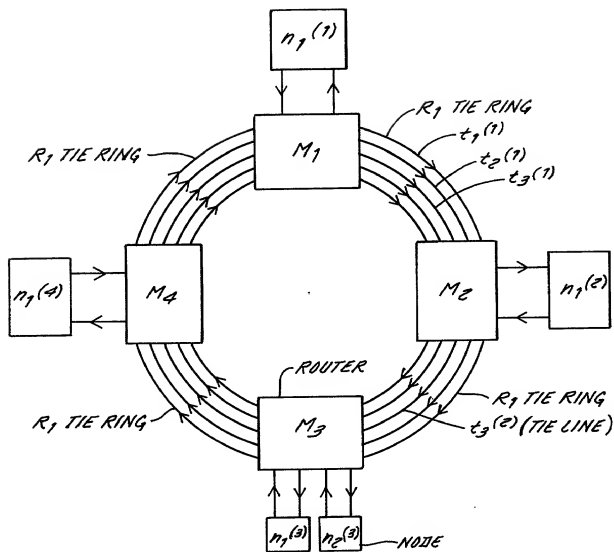
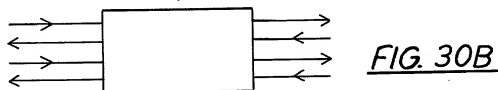
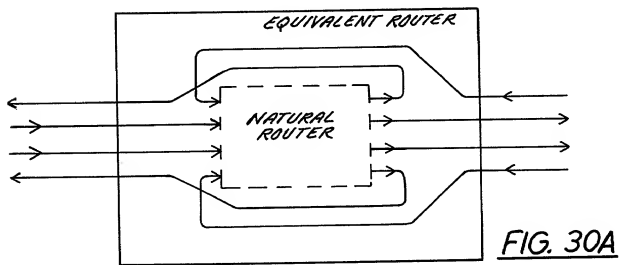
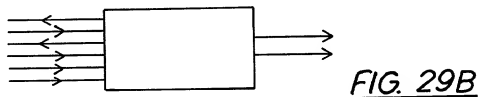
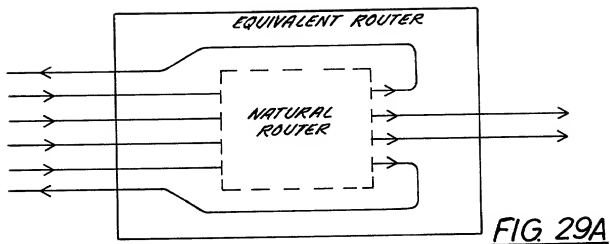


FIG. 28



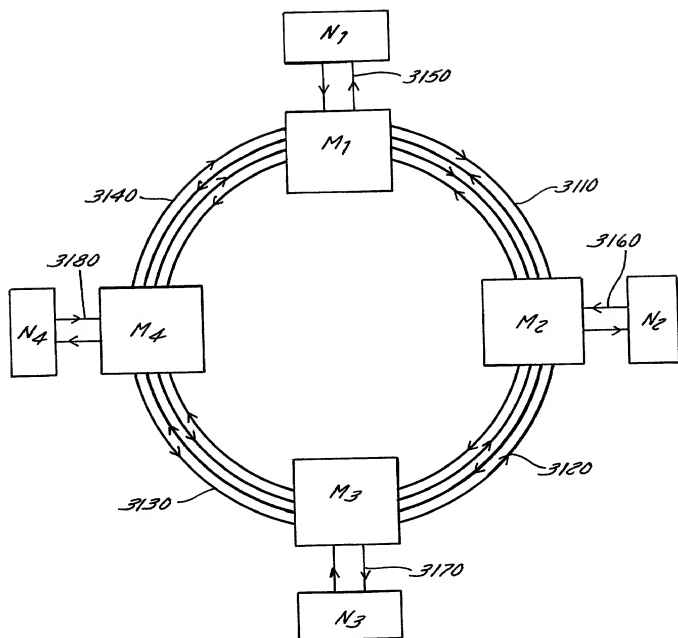


FIG. 31

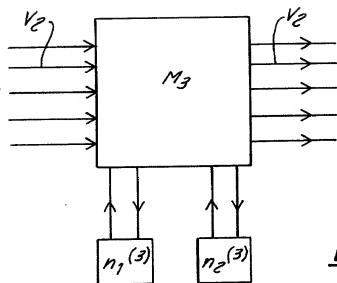


FIG. 32A

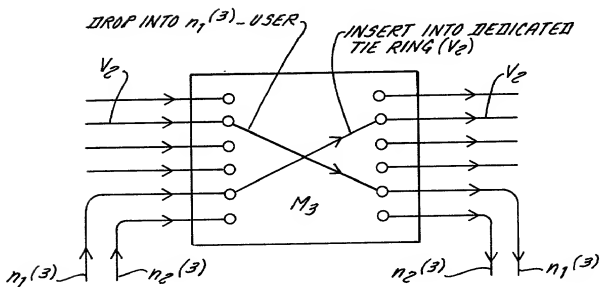
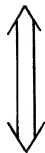


FIG. 32B

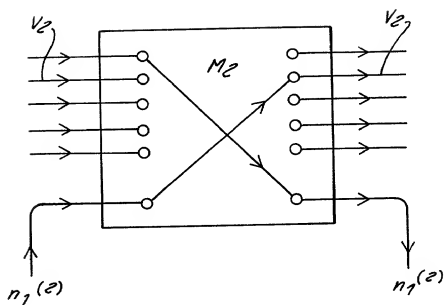


FIG. 32C

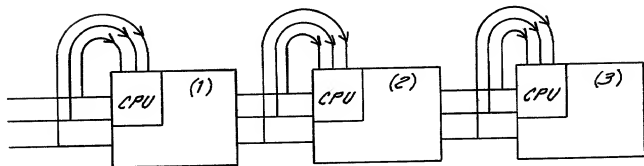


FIG. 32D

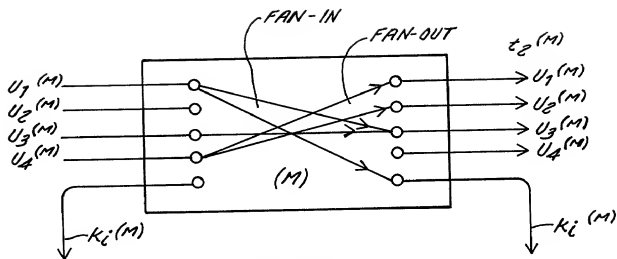


FIG. 33

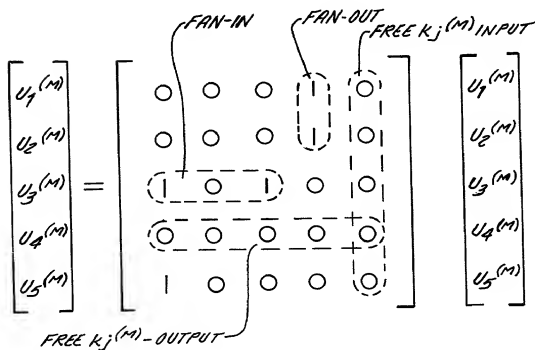


FIG. 34

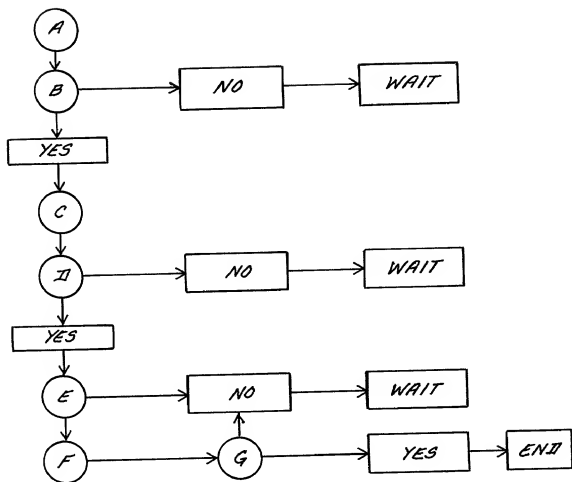


FIG. 35

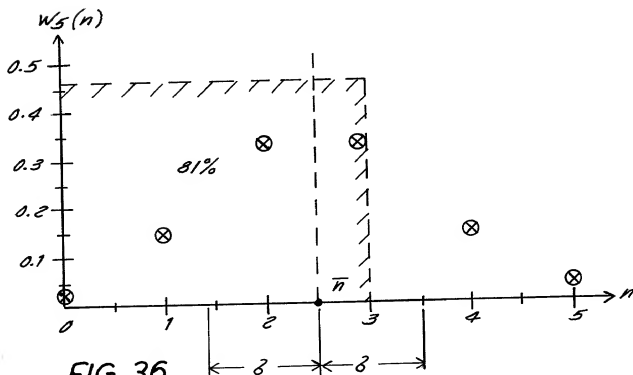


FIG. 36

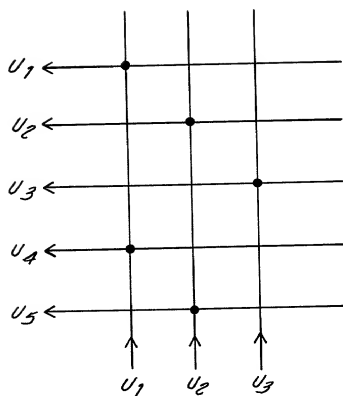


FIG. 37

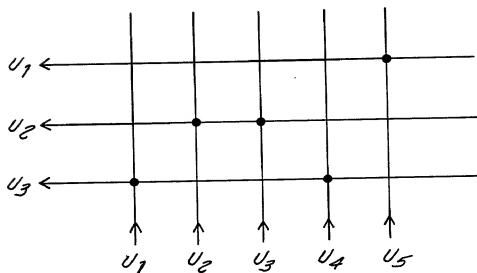


FIG. 38

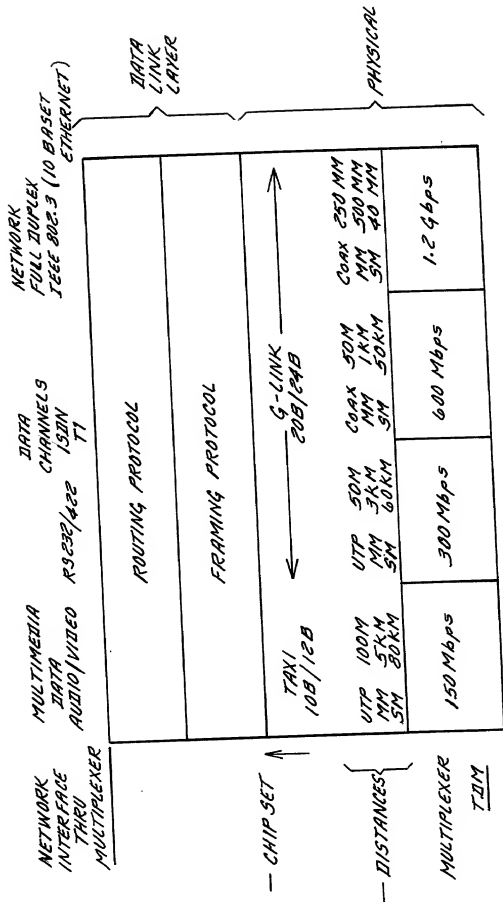


FIG. 39

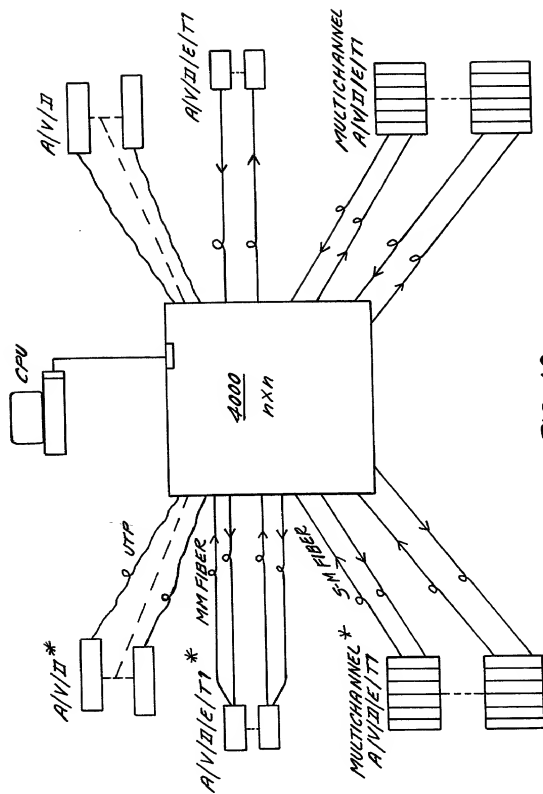


FIG. 40

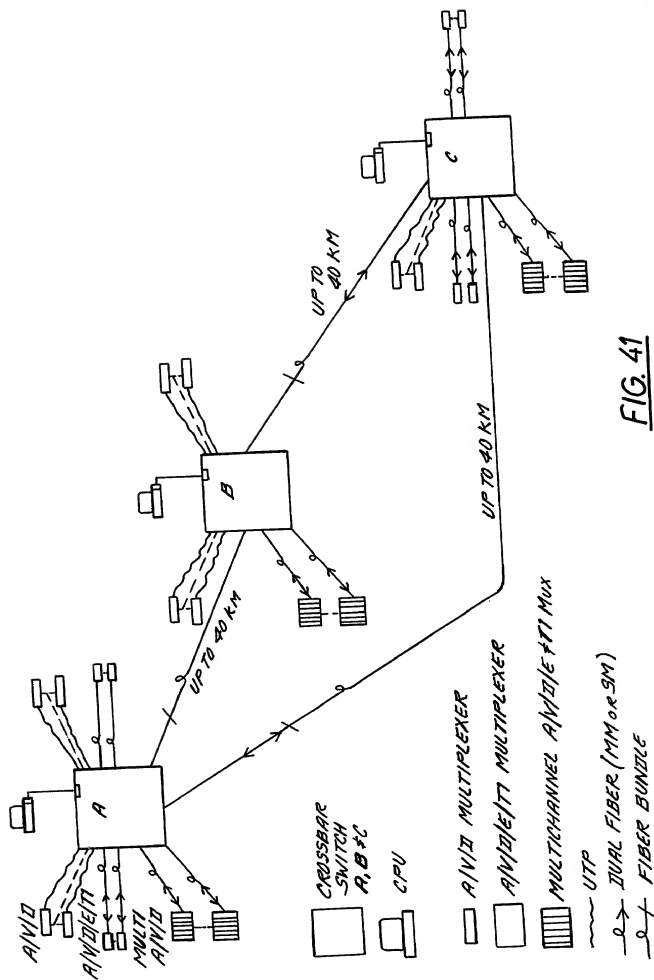


FIG. 41

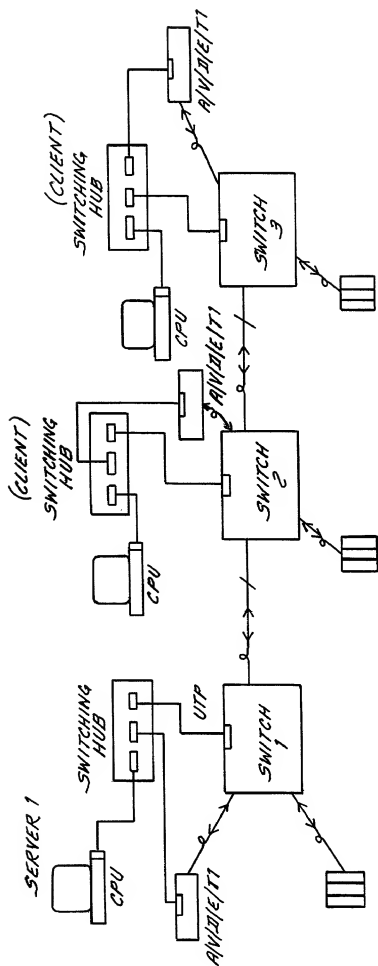
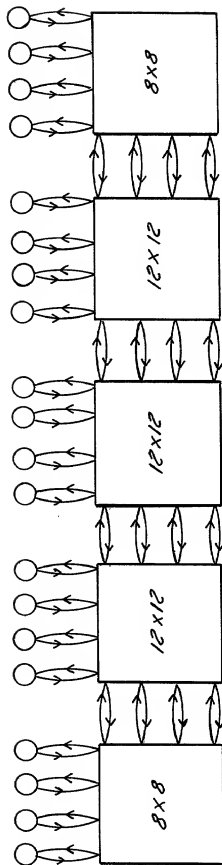
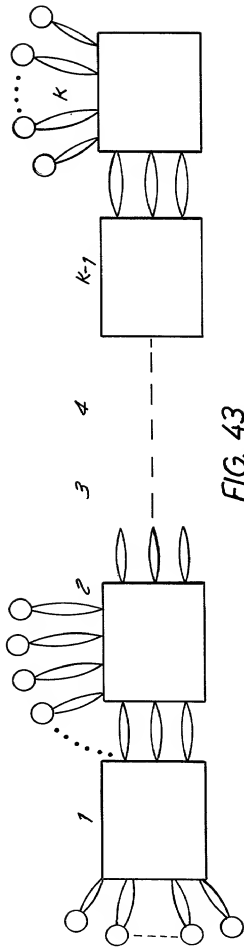


FIG. 42



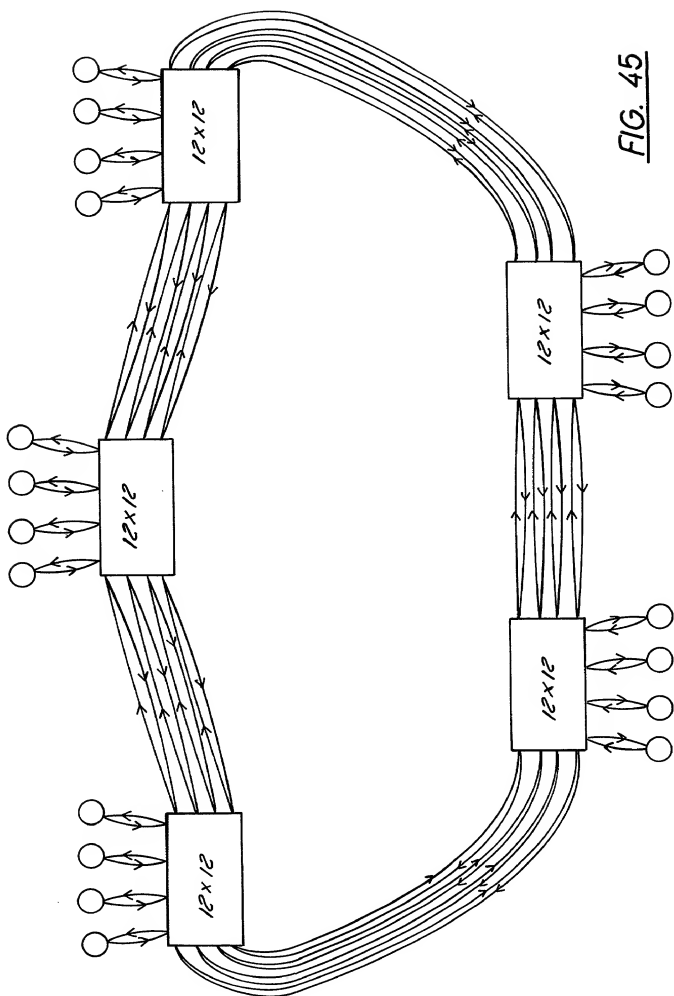


FIG. 45

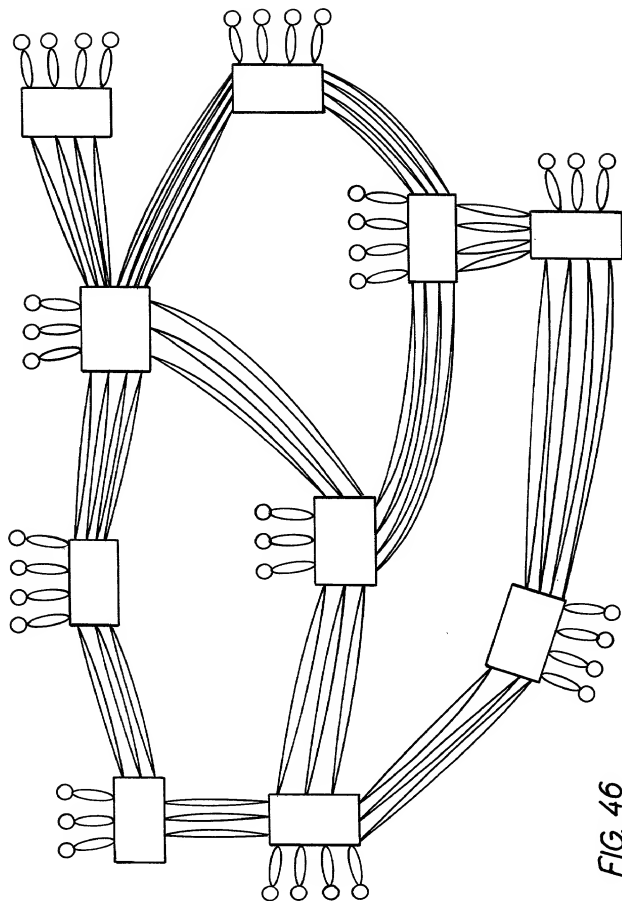


FIG. 46